

SECTION 19. PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY.

- (A) The following paragraphs are those adopted from Nebraska Administrative Code, Title 129 (Department of Environmental Quality), Chapter 19, and those of 40 CFR Part 52 §52.21 published on July 1, 2014 which are incorporated by reference into this section of the LLCAPCPRS:
- (1) §52.21 (b)(2)(iii)(i) through (b)(2)(iii)(k) related to clean coal technology demonstration projects;
 - (2) §52.21 (b)(34) through (b)(38) definitions related to clean coal technology demonstration projects;
 - (3) §52.21 (e) Restrictions on area classifications;
 - (4) §52.21 (g) Redesignation; and
 - (5) §52.21 (p) "Sources impacting Federal Class I areas", as published at 75 Federal Register 64906.
- (B) The requirements of this section apply to the construction of any new major stationary source or the major modification of any existing major stationary source, as defined in Article 2, Section 2, paragraph (H). The provisions of this section apply only to sources located in areas designated as attainment or unclassifiable.
- (C) Prior to beginning actual construction of a new major stationary source or a major modification of an existing major stationary source, the owner or operator must obtain a permit from the Department stating that the source will comply with the requirements of this section.
- (D) For any construction project at an existing major stationary source, the owner or operator must determine if the project is a major modification for a regulated NSR pollutant by assessing the following criteria:
- (1) The status of each relevant emissions unit, either new or existing, as defined in Article 2, Section 1.
 - (2) The baseline actual emissions (BAE) for each unit, as defined in paragraph (E) of this section.
 - (3) The projected actual emissions (PAE) or potential to emit (PTE) for each unit, as defined in paragraphs (F) and (G) of this section.
 - (4) Whether the emissions increase (PAE (or PTE) minus BAE) as calculated according to paragraph (H) of this section is significant, as defined in paragraph (J) of this section.
 - (5) If the emissions increase is significant as calculated according to paragraph (H) of this section, whether the net emissions increase, as calculated according to paragraph (I) of this section, is significant as defined in paragraph (J) of this section.
- (E) Baseline actual emissions (BAE) for a new unit is defined in paragraph (E)(12) below. BAE for an existing emissions unit means the average rate, in tons per year, at which an emissions unit actually emitted the regulated NSR pollutant during any consecutive twenty-four (24) month period selected by the owner or operator that is representative of normal source operation and that meets the following criteria:
- (1) For units at an electric utility steam generating unit, within the five (5) year period immediately preceding when the owner or operator begins actual construction of the project, unless the Department determines that a different time period within the preceding ten (10) years is more representative of normal source operations.
 - (2) For all other units, within the ten (10) year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Department for a permit required under this paragraph, whichever is earlier.
 - (3) In no case may the consecutive twenty-four (24) month period begin before January 1, 1996.
 - (4) The average rate per unit shall include emissions associated with startups, shutdowns, and malfunctions.
 - (5) Fugitive Emissions.
 - (a) The average rate per unit shall include fugitive emissions, to the extent quantifiable, for sources belonging to one of the categories listed in Article 2, Section 2, paragraph (B)(3). Fugitive emissions shall be considered quantifiable if emission factors are available or if emissions can be calculated using mass balance equations or other means deemed acceptable to the Department.
 - (b) The average rate per unit shall not include fugitive emissions for sources not belonging to one of the categories specified in Article 2, Section 2, paragraph (B)(3).
 - (6) The average rate per unit shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive twenty-four (24) month period.

- (7) The average rate per unit shall be adjusted downward to reflect any regulatory changes becoming effective since the beginning of the consecutive twenty-four (24) month period that would have required reduced emissions for any of the emissions units being changed if the regulatory changes had been in effect during the consecutive twenty-four (24) month period.
 - (8) When a project involves multiple emissions units, only one consecutive twenty-four (24) month period must be used to determine the BAE for the emissions units being changed. A different consecutive twenty-four (24) month period can be used for each regulated NSR pollutant.
 - (9) The average rate per unit shall not be based on any consecutive twenty-four (24) month period for which there is inadequate information for determining annual emissions or for measuring non-compliant emissions, in tons per year.
 - (10) BAE shall be calculated using the following methodologies in this order of preference where possible:
 - (a) Continuous Emissions Monitors (CEMS) complying with requirements in Article 2, Section 34.
 - (b) Predictive Emissions Monitors (PEMS) complying with requirements in Article 2, Section 34.
 - (c) Source-specific stack test data, if such stack test occurred during the baseline period.
 - (d) Emission factors as defined in Article 2, Section 6, paragraphs (C)(3) and (C)(4).
 - (e) Mass balance.
 - (11) Other methodologies or a different order of preference of methodologies than those listed in (E)(10) above may be used to calculate the BAE with prior concurrence of the Department.
 - (12) For a new emissions unit, the BAE for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero (0); and thereafter, for all other purposes, shall equal the unit's PTE.
 - (13) For a stationary source with a 'Plant-wide Applicability Limit' (PAL), the BAE shall be calculated in accordance with the procedures contained in paragraphs (E)(1) through (E)(12) above.
- (F) Projected actual emissions (PAE) is the maximum annual rate, in tons per year (consecutive twelve (12) month period), at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the five (5) years following the date the unit resumes regular operation after the project. If the project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant, and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source, the PAE is the maximum annual rate in any one of the ten (10) years following the date the unit resumes regular operation after the project. To determine PAE, the owner or operator:
- (1) Shall consider all relevant information, including but not limited to the source's historical operational data, its own representations, expected business activity and highest projections of business activity, compliance plans, and filings with state or federal regulatory authorities.
 - (2) Shall include emissions associated with startup, shutdown, and malfunctions.
 - (3) Shall consider fugitive emissions as follows:
 - (a) The average rate per unit shall include fugitive emissions, to the extent quantifiable, for sources belonging to one of the categories listed in Article 2, Section 2, paragraph (B)(3). Fugitive emissions shall be considered quantifiable if emission factors are available or if emissions can be calculated using mass balance equations or other means deemed acceptable to the Department.
 - (b) The average rate per unit shall not include fugitive emissions for sources not belonging to one of the categories specified in Article 2, Section 2, paragraph (B)(3).
 - (4) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive twenty-four (24) month period used to establish the BAE and that are also unrelated to the particular project, including any increased utilization due to product demand growth. The Department shall provide guidance for use by the owner or operator to determine the amount of emissions that may be attributed to demand growth.
 - (5) May, in lieu of using the method set out in paragraphs (F)(1), (F)(2), (F)(3), and (F)(4) above, elect to use the emissions unit's potential to emit (PTE), in tons per year, as defined in paragraph (G) of this section.
- (G) Potential to emit (PTE) is the maximum capacity of a major stationary source to emit a regulated NSR pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit such a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

- (H) Calculating Significant Emissions Increase of a Regulated NSR Pollutant.
- (1) Actual-to-Projected-Actual Applicability Test for Projects That Only Involve Existing Emissions Units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between PAE and BAE, for each existing emissions unit, equals or exceeds the significant amount for that pollutant, as described in paragraph (J) of this section.
 - (2) Actual-to-Potential Test for Projects that Only Involve Construction of a New Emissions Unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the PTE from each new emissions unit following completion of the project and the BAE of these units before the project equals or exceeds the significant amount for that pollutant, as described in paragraph (J) of this section.
 - (3) Hybrid Test for Projects that Involve Multiple Types of Emissions Units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for all emissions units involved in the project (using the methods specified in paragraphs (E)(1) and (E)(2) of this section) equals or exceeds the significant amount for that pollutant, as described in paragraph (J) of this section.
 - (4) For any major stationary source with a Plant-wide Applicability Limit (PAL) for a regulated NSR pollutant, the major stationary source shall comply with the requirements in paragraph (K) of this section.
- (I) If a project results in a significant emissions increase as calculated in paragraph (H) of this section, then a determination must be made as to whether the project also results in a significant net emissions increase. The net emissions increase is the amount over zero (0) of the sum of the emissions increase and any other increases and decreases in actual emissions at the major stationary source that are contemporaneous (as defined in paragraph (I)(1) below) with the project and are otherwise creditable. BAE for calculating such increases and decreases shall be as defined in paragraph (E) of this section.
- (1) An increase or decrease in actual emissions is contemporaneous with the increase from the project for which an emissions increase has been calculated in paragraph (H) of this section only if it occurs between the date five (5) years before the source begins actual construction (as defined in Article 2, Section 1) of the project and the date that the increase from the project occurs.
 - (2) An increase or decrease is creditable only if the Department has not relied on it in issuing a Prevention of Significant Deterioration (PSD) permit for the source which was in effect when the increase from the project occurred.
- (J) Significant means, in reference to an emission increase or a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the rates set forth in Table 19-1 below. For any regulated NSR pollutant not listed in Table 19-1, any increase is significant.

Table 19-1

Pollutant	Significant Emission Rate (in tons per year, or tpy, unless other stated)
Carbon Monoxide (CO)	100.0 tpy
Nitrogen Oxides (NO _x)	40.0 tpy
Sulfur Dioxide (SO ₂)	40.0 tpy
Particulate matter (PM)	25.0 tpy
Particulate matter less than 10 micrometers nominal diameter (PM ₁₀)	15.0 tpy
Particulate matter less than 2.5 micrometers nominal diameter (PM _{2.5})	Any of the following: <ul style="list-style-type: none"> • 10.0 tpy of direct PM_{2.5} • 40.0 tpy of NO_x • 40.0 tpy of SO₂

Table 19-1

Pollutant	Significant Emission Rate (in tons per year, or tpy, unless other stated)
Ozone	Any of the following: <ul style="list-style-type: none"> 40.0 tpy of NO_x 40.0 tpy of Volatile Organic Compounds (VOC)
Lead	0.6 tpy
Fluorides	3.0 tpy
Sulfuric Acid (H ₂ SO ₄) Mist:	7.0 tpy
Hydrogen Sulfide (H ₂ S)	10.0 tpy
Total Reduced Sulfur Compounds (including H ₂ S)	10.0 tpy
Reduced Sulfur Compounds (including H ₂ S)	10.0 tpy
Municipal Waste Combustor Organics (measured as total tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans)	3.2×10^{-6} megagrams per year; or 3.5×10^{-6} tpy
Municipal Waste Combustor Metals (measured as particulate matter)	14.0 megagrams per year; or 15.0 tpy
Municipal Waste Combustor Acid Gases (measured as SO ₂ and hydrogen chloride)	36.0 megagrams per year; or 40.0 tpy
Municipal Solid Waste Landfill Emissions (measured as non-methane organic compounds)	45.0 megagrams per year; or 50.0 tpy
Greenhouse Gases (GHGs)	Both of the following: <ul style="list-style-type: none"> Greater than zero (>0) tons per year on a mass basis; and 75,000 tons per year on a carbon dioxide equivalent (CO₂e) basis

- (K) Actuals PALs. The term “Plant-wide Applicability Limitations” (PAL) refers to an “actuals PAL” in the following paragraphs. The Department may approve a PAL in accordance with the following requirements:
- (1) A PAL may only be approved for an existing major stationary source.
 - (2) The PAL shall impose an annual emission limitation in tons per year that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first twelve (12) months of establishing a PAL, the major stationary source shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous twelve (12) consecutive months is less than the PAL (a twelve (12) month average, rolled monthly). For each month during the first eleven (11) months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.
 - (3) Any physical change or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets all requirements in paragraph (M) of this section, and complies with the provisions of the construction permit establishing the PAL:
 - (a) Is not considered a major modification for the PAL pollutant; and
 - (b) Is not subject to the provisions in paragraph (X)(2) of this section.
 - (4) Except as provided under paragraph (K)(3)(b) above, a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.

- (5) Permit Application to Establish a PAL. An owner or operator of a major stationary source wishing to establish a PAL must submit to the Department the following information:
- (a) A list of all emissions units at the source and each unit's designation as small, significant, or major based on its PTE.
 - (b) An indication of which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit and, if any do so, whether such requirements, emission limitations, or work practices were taken to comply with "Best Available Control Technology" (BACT).
 - (c) Calculations of the BAE with supporting documentation.
 - (d) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve (12) month rolling total for each month as required by paragraph (K)(12) of this section.
- (6) The PAL shall be established in a construction permit in accordance with Article 2, Section 17. The construction permit establishing the PAL shall include the following information and conditions:
- (a) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.
 - (b) Each PAL shall regulate emissions of only one (1) pollutant.
 - (c) Each PAL shall have an effective period of ten (10) years.
 - (d) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (K)(12), (K)(13), and (K)(14) of this section for each emissions unit under the PAL throughout the PAL effective period.
 - (e) The PAL pollutant and the applicable source-wide emissions limitation in tons per year.
 - (f) The PAL effective date and expiration date.
 - (g) Specification that if the owner or operator of the source with a PAL applies to renew a PAL in accordance with paragraph (K)(15) of this section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised permit renewing the PAL is issued or denied by the Department.
 - (h) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns, and malfunctions.
 - (i) A requirement that, once a PAL expires, the major stationary source is subject to the requirements under paragraph (K)(18) of this section.
 - (j) The calculation procedures that the owner or operator of the source shall use to convert the monitoring system data to monthly emissions and annual emissions based on a twelve (12) month rolling total for each month as required by paragraph (K)(12) of this section.
 - (k) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provision under paragraph (K)(12) of this section.
 - (l) A requirement to retain the records required under paragraph (K)(13) of this section onsite. Such records may be retained in an electronic format.
 - (m) A requirement to submit the reports required under paragraph (K)(14) of this section by the required deadlines.
 - (n) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under Article 2, Section 17, paragraph (M)(3), unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.
 - (o) Any other requirements that the Department deems necessary to implement and enforce the PAL.
- (7) Setting the PAL Emissions Level. The PAL level for a major stationary source shall be established as the sum of the BAE of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (J) of this section, or under the Act, whichever is lower. Emissions associated with units that were permanently shut down after the twenty-four (24) month period used for the BAE must be subtracted from the PAL level. Emissions from units on which actual construction began after the twenty-four (24) month period must be added to the PAL level in an amount equal to the PTE of the units. The Department shall specify a reduced PAL level in tons per year in the construction permit establishing the PAL to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Department is aware of prior to issuance of the construction permit establishing the PAL.

- (8) During the PAL effective period, the Department is required to reopen the construction permit to:
 - (a) Correct typographical or calculation errors made in setting the PAL or to reflect a more accurate determination of emissions used to establish the PAL;
 - (b) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under Article 2, Section 17, paragraph (M)(3); and
 - (c) Revise the PAL to reflect an increase in the PAL as provided in paragraph (K)(11) of this section.
- (9) During the PAL effective period the Department may, at its discretion, reopen the construction permit to:
 - (a) Reduce the PAL to reflect newly applicable Federal requirements with compliance dates after the PAL effective date;
 - (b) Reduce the PAL consistent with any other requirement, such as statute, rule, or court decision that is enforceable as a practical matter; or
 - (c) Reduce the PAL if the Department determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an Air Quality Related Values (AQRV) that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
- (10) Except for the permit reopening to correct typographical errors or calculation errors that do not increase the PAL level, all reopenings shall be carried out in accordance with public participation procedures in Article 2, Section 14.
- (11) Increasing a PAL Emission Limitation During the PAL Effective Period.
 - (a) A PAL emission limitation may be increased during the PAL effective period only if the owner or operator of the major stationary source complies with the following:
 - (1) The owner or operator shall submit a complete construction permit application to request an increase in the PAL limit for a PAL major modification. The application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.
 - (2) As part of this application, the owner or operator shall demonstrate that the sum of the BAE of the small emissions units, plus the sum of the BAE of the significant and major emissions units (assuming application of BACT equivalent controls), plus the sum of the allowable emissions of the new or modified emissions unit(s), exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT requirement that was established within the preceding ten (10) years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT with which that emissions unit must currently comply.
 - (3) The owner or operator must obtain a major PSD permit for all emissions unit(s) identified in paragraph (K)(11)(a)(1) of this section, without regard to whether the increase in emissions for the unit will be significant. These emissions unit(s) shall comply with any emissions requirements resulting from the major PSD process, even though they have also become subject to the PAL or continue to be subject to the PAL.
 - (4) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
 - (b) The Department shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the BAE of the significant and major emissions units (assuming application of BACT equivalent controls), plus the sum of the BAE of the small emissions units.
 - (c) The construction permit reflecting the increased PAL level shall be issued pursuant to compliance with requirements for public participation in Article 2, Section 14.

- (12) Monitoring Requirements for PALs. Each operating permit that includes a PAL must contain enforceable requirements for the monitoring system that accurately determines plant-wide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for a PAL must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the permit that includes the PAL. Failure to use a monitoring system that meets the requirements of paragraph (K)(12) of this section renders the PAL invalid. The PAL monitoring system must employ one of the monitoring approaches listed in paragraphs (K)(12)(a) through (K)(12)(d) below or an alternative approach approved by the Department:
- (a) CEMS which meet the following requirements:
 - (1) CEMS must comply with applicable Performance Specifications found in 40 CFR Part 60, Appendix B; and
 - (2) CEMS must sample, analyze, and record data at least every fifteen (15) minutes while the emissions unit is operating.
 - (b) PEMS which meet the following requirements:
 - (1) Any PEMS must be approved for use by the Department in accordance with Article 2, Section 34, paragraph (I).
 - (2) Any PEMS approved for use in accordance with Article 2, Section 34, paragraph (I) must sample, analyze, and record data at least every fifteen (15) minutes, or at another less frequent interval approved by the Department, while the emissions unit is operating.
 - (c) Emissions factors which meet the following requirements:
 - (1) All emissions factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
 - (2) The emissions unit shall operate within the designated range of use for the emissions factor if applicable; and
 - (3) If technically practicable, the owner or operator of a significant emissions unit that relies on an emissions factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emissions factor in accordance with Article 2, Section 34, paragraph (G), unless the Department determines that such testing is not required.
 - (d) Mass balance calculations for activities using coatings or solvents which meet the following requirements:
 - (1) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
 - (2) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
 - (3) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Department determines there is site-specific data or a site-specific monitoring program to support another content within the range.
 - (e) An owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the permit.
 - (f) Notwithstanding the requirements in paragraphs (K)(12)(a) through (K)(12)(d) of this section, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Department shall, at the time of permit issuance:
 - (1) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
 - (2) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

- (g) Re-Validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Department. Such testing must occur at least once every five (5) years after issuance of the PAL.
- (13) Recordkeeping Requirements. The construction permit which contains the PAL shall require the owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph (K) of this section and of the PAL, including a determination of each emissions unit's twelve (12) month rolling total emissions, for five (5) years from the date of such record. Such permit shall also require the owner or operator to retain a copy of the following records, for the duration of the PAL effective period plus five (5) years:
 - (a) A copy of the permit application requesting a PAL and applications for revisions to the PAL; and
 - (b) Each annual certification of compliance pursuant to Article 2, Section 8, paragraph (L)(5) and the data relied on in certifying the compliance.
- (14) Reporting and Notification Requirements. The owner or operator shall submit the following reports to the Department in accordance with Article 2, Section 8, paragraphs (D)(3) and (D)(4):
 - (a) Semiannual Report. The semiannual report shall be submitted to the Department within thirty (30) days of the end of each reporting period. This report shall contain the following information:
 - (1) The identification of the owner or operator and the permit number;
 - (2) Total annual emissions (tons per year, or tpy) based on a twelve (12) month rolling total for each month in the reporting period recorded pursuant to paragraph (K)(13) of this section;
 - (3) All data relied upon, including but not limited to, any quality assurance or quality control data, in calculating the monthly and annual PAL pollutant emissions;
 - (4) A list of any emissions units modified or added to the major stationary source during the preceding six (6) month period;
 - (5) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken;
 - (6) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by paragraph (K)(12)(e) of this section; and
 - (7) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
 - (b) Deviation Report. The owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to Article 2, Section 8, paragraph (D)(3)(b) including time limits, shall satisfy this reporting requirement. The reports shall contain the following information:
 - (1) The identification of the owner or operator and the permit number;
 - (2) The PAL requirement that experienced the deviation or that was exceeded;
 - (3) Emissions resulting from the deviation or the exceedance; and
 - (4) A signed statement by the responsible official certifying the truth, accuracy, and completeness of the information provided in the report.
 - (c) Re-Validation Results. The owner or operator shall submit to the Department the results of any re-validation test or method within forty-five (45) days after completion of such test or method.
- (15) PAL Renewal. The owner or operator of a source with a PAL may apply for PAL renewal no sooner than eighteen (18) months and no later than six (6) months prior to the end of the PAL effective period. If the owner or operator submits a complete application for renewal within this time period, the PAL shall continue to be effective until the revised permit with the renewed PAL is issued or denied. A complete application shall consist of the following:
 - (a) All of the information required for an initial application as listed in paragraph (K)(5) of this section;
 - (b) A proposed PAL level;

- (c) The sum of the PTE of all emissions units under the PAL, with supporting documentation; and
 - (d) Any other information the owner or operator wants the Department to consider in determining the appropriate level for renewing the PAL.
- (16) The Department shall follow the procedures specified in Article 2, Section 14 in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Department.
- (17) Adjusting the PAL at the Time of Renewal.
 - (a) If the emissions level calculated in accordance with paragraph (K)(7) of this section at the time of renewal is equal to or greater than eighty percent (80%) of the currently permitted PAL level, the Department may renew the PAL at the currently permitted level without considering the factors set forth in paragraph (K)(17)(b) below.
 - (b) At the Department's discretion, it may set the PAL at a level that it determines to be more representative of the source's BAE, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Department in its written rationale.
 - (c) Notwithstanding the discretion allowed in paragraphs (K)(17)(a) and (K)(17)(b) above:
 - (1) If the PTE of the source is less than the PAL, the Department shall adjust the PAL to a level no greater than the PTE of the source.
 - (2) The Department shall not approve a renewed PAL level higher than the current PAL, unless the source has complied with the provisions of paragraph (K)(11) of this section.
 - (d) If the compliance date for a State or Federal requirement that applied to the PAL source occurs during the PAL effective period, and if the Department has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL renewal or operating permit renewal whichever occurs first.
- (18) Termination or Expiration of a PAL. The owner or operator of any source with a PAL that wishes to terminate such PAL prior to the end of the PAL effective period shall comply with the following requirements. Any PAL that is not renewed in accordance with the procedures in paragraph (K)(15) of this section shall expire at the end of the PAL effective period and the requirements in this paragraph shall apply. If an application for PAL renewal is denied, the PAL shall expire on the date the application is denied and the requirements in this paragraph shall apply:
 - (a) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emissions limitation under a new construction permit established as a major modification, as specified below:
 - (1) Within the time frame specified for PAL renewals in paragraph (K)(15) of this section, the source shall submit a proposed allowable emissions limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as determined by the Department) by distributing the PAL allowable emissions for the source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under paragraph (K)(17)(d) of this section, such distribution shall be made as if the PAL had been adjusted.
 - (2) The Department shall determine whether and how the PAL allowable emissions will be distributed and issue a construction permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Department determines is appropriate.
 - (b) Each emissions unit(s) shall comply with the allowable emissions limitation on a twelve (12) month rolling basis. The Department may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS or PEMS to demonstrate compliance with the allowable emissions limitation.
 - (c) Until the Department issues the new construction permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph (K)(18)(a) above, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emissions limitation.

- (d) Any physical change or change in the method of operation at the major stationary source will be subject to major PSD requirements if such change meets the definition of major modification in Article 2, Section 1.
 - (e) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements that may have applied either during the PAL effective period or prior to the PAL effective period except for those emissions limitations that had been established pursuant to paragraph (X)(2) of this section, but were eliminated by the PAL in accordance with paragraph (K)(11) of this section.
- (L) **Ambient Air Increments.** For any period other than an annual period listed below, the applicable maximum allowable increase may be exceeded during one (1) such period per year at any one location. In any area of the state, increases in pollutant concentration over the baseline concentration shall be limited to levels set forth in Table 19-2 below (in units of micrograms per cubic meter or $\mu\text{g}/\text{m}^3$).

Table 19-2

Pollutants	Annual Arithmetic Mean	24-hour Maximum	3-hour Maximum
SO ₂	20.0 $\mu\text{g}/\text{m}^3$	91.0 $\mu\text{g}/\text{m}^3$	512.0 $\mu\text{g}/\text{m}^3$
PM ₁₀	17.0 $\mu\text{g}/\text{m}^3$	30.0 $\mu\text{g}/\text{m}^3$	---
PM _{2.5}	4.0 $\mu\text{g}/\text{m}^3$	9.0 $\mu\text{g}/\text{m}^3$	---
NO ₂	25.0 $\mu\text{g}/\text{m}^3$	---	---

- (M) **Ambient Air Ceilings.** No concentration of a pollutant shall exceed:
- (1) The concentration permitted under the national secondary ambient air quality standard; or
 - (2) The concentration permitted under the national primary ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.
- (N) **Exclusions from Increment Consumption.** The concentrations listed in paragraphs (N)(1) through (N)(4) below shall be excluded in determining compliance with a maximum allowable increase. No exclusions of concentrations referred to in paragraphs (N)(1) and (N)(2) below shall apply more than five (5) years after the effective date of the applicable order or plan.
- (1) Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under Section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order;
 - (2) Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;
 - (3) Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources; and
 - (4) The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration.
- (O) **Stack Heights.** Requirements for control of pollutants under this section shall be in accordance with Article 2, Section 16.
- (P) **Exemptions for Particular Major Stationary Source or Major Modification.** The requirements of paragraphs (Q) through (X) of this section shall not apply to a particular major stationary source or major modification if:
- (1) The source or major modification would be a nonprofit health or nonprofit educational institution, or a major modification would occur at such an institution and the Governor of the State of Nebraska requests that it be exempt from those requirements.
 - (2) The source or major modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the PTE of the stationary source or modification and the source does not belong to any of the categories listed in Article 2, Section 2, paragraph (B)(3).

- (3) The source or major modification is a portable stationary source which has previously received a permit under requirements equivalent to those in paragraphs (Q) through (X) of this section, if:
 - (a) The owner or operator proposes to temporarily relocate the source so that emissions at the new location would be temporary;
 - (b) The emissions for the source would not exceed its allowable emissions;
 - (c) The emissions from the source would not impact any Class I area or area where an applicable increment is known to be violated; and
 - (d) Notice of relocation is given to the Department in accordance with Article 2, Section 10.
- (4) Requirements equivalent to those in paragraphs (Q) through (X) of this section do not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or major modification is located in an area designated as nonattainment under Section 107 of the Act.
- (5) Requirements equivalent to those contained in paragraphs (R), (T), and (V) of this section do not apply to a proposed major stationary source or major modification with respect to a particular pollutant if the allowable emissions of that pollutant from a new source, or the net emissions increase of that pollutant from a major modification, would be temporary and would not impact any Class I area or area where an applicable increment is known to be violated.
- (6) Requirements equivalent to those contained in paragraphs (R), (T), and (V) of this section as they relate to any maximum allowable increase for a Class II area do not apply to a modification of a major stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each regulated NSR pollutant from the modification after the application of BACT would be less than fifty (50) tons per year.
- (7) The Department may exempt a proposed major stationary source or major modification from the requirements of paragraph (T) of this section with respect to monitoring for a particular pollutant, if:
 - (a) The emissions increase of the pollutant from a new stationary source or the net emissions increase of the pollutant from a major modification would cause, in any area, air quality impacts less than the amounts set forth in Table 19-3 below, or as provided in paragraphs (P)(7)(b) through (P)(7)(e) below.

Table 19-3

Pollutants	Annual Average	3-month Average	24-hour Average	8-hour Average	1-hour Average
SO ₂	---	---	13.0 µg/m ³	---	---
PM ₁₀	---	---	10.0 µg/m ³	---	---
NO ₂	14.0 µg/m ³	---	---	---	---
CO	---	---	---	575.0 µg/m ³	---
Lead	---	0.1 µg/m ³	---	---	---
Fluorides	---	---	0.25 µg/m ³	---	---
Total Reduced Sulfur	---	---	---	---	10.0 µg/m ³
Hydrogen Sulfide	---	---	---	---	0.2 µg/m ³
Reduced Sulfur Compounds	---	---	---	---	10.0 µg/m ³

Note: "µg/m³" means micrograms per cubic meter.

- (b) No de minimis air quality level is provided for ozone. However, any net increase of one hundred (100) tons per year or more of VOCs or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.
- (c) No de minimis air quality level is provided for PM_{2.5}.
- (d) The concentrations of the pollutant in the area that the source or major modification would affect are less than the concentrations listed in paragraph (P)(7)(a) above; or
- (e) The pollutant is not listed in paragraph (P)(7)(a) above.

- (8) Permitting requirements equivalent to those contained in paragraph (R)(1)(b) of this section do not apply to a stationary source or modification with respect to any maximum allowable increase for nitrogen oxides if the owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved or promulgated under the Act before the provisions embodying the maximum allowable increase took effect as part of the plan and the Department subsequently determined that the application as submitted before that date was complete.
- (9) Permitting requirements equivalent to those contained in paragraph (R)(1)(b) of this section shall not apply to a stationary source or modification with respect to any maximum allowable increase for PM₁₀ if the owner or operator of the source or modification submitted an application for a permit under the applicable permit program approved under the Act before the provisions embodying the maximum allowable increases for PM₁₀ took effect as part of the plan, and the Department subsequently determined that the application as submitted before that date was complete. Instead, the applicable requirements equivalent to paragraph (R)(1)(b) of this section shall apply with respect to the maximum allowable increases for total suspended particulate (TSP) as in effect on the date the application was submitted.
- (Q) Control Technology Review.
 - (1) A major stationary source or major modification shall meet each applicable emissions limitation under the SIP and each applicable emission standard and standard of performance under Article 2, Sections 18 and 23.
 - (2) A new major stationary source shall apply best available control technology (BACT) for each regulated NSR pollutant that it would have the potential to emit in significant amounts.
 - (3) A major modification shall apply BACT for each regulated NSR pollutant for which it would be a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.
 - (4) For phased construction projects, the determination of BACT shall be reviewed and modified as appropriate at the earliest reasonable time which occurs no later than eighteen (18) months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of BACT for the source.
- (R) Source Impact Analysis.
 - (1) Required Demonstration. The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions, (including secondary emissions) would not cause or contribute to air pollution in violation of:
 - (a) Any national ambient air quality standard in any air quality control region; or
 - (b) Any applicable maximum allowable increase over the baseline concentration in any area.
- (S) Air Quality Models.
 - (1) All applications of air quality modeling referred to in Article 2, Section 19 shall be based on the applicable models, data bases, and other requirements specified in 40 CFR Part 51, Appendix W (Guideline on Air Quality Models).
 - (2) Where an air quality model specified in 40 CFR Part 51, Appendix W (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis adopted by the Department. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model may be subject to notice and opportunity for public comment under procedures set forth in Article 2, Section 14.

- (T) Air Quality Analysis.
- (1) Pre-Application Analysis.
 - (a) Any application for a major PSD permit shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:
 - (1) For the source, each pollutant that it would have the potential to emit in a significant amount;
 - (2) For the major modification, each pollutant for which it would result in a significant net emissions increase.
 - (b) With respect to any pollutant for which no NAAQS exists, the analysis shall contain such air quality monitoring data as the Department determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.
 - (c) With respect to any pollutant (other than non-methane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.
 - (d) The continuous air monitoring data that is required shall have been gathered over a period of one (1) year and shall represent the year preceding receipt of the application, except that, if the Department determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one (1) year (but not less than four (4) months), the data that is required shall have been gathered over at least that shorter period.
 - (e) The owner or operator of a proposed major stationary source or major modification of volatile organic compounds (VOCs) who satisfies all conditions of Article 2, Section 17, paragraph (M), may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as required under paragraph (T)(1) above.
 - (2) Post-Construction Monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or major modification, conduct such ambient monitoring as the Department determines is necessary to determine the effect emissions from the stationary source or major modification may have, or are having, on air quality in any area.
 - (3) Operation of Monitoring Stations. The owner or operator of a major stationary source or major modification shall meet the requirements of 40 CFR Part 58, Appendix B during the operation of monitoring stations for purposes of satisfying the requirements of paragraph (T) of this section.
- (U) Source Information.
- (1) The owner or operator of a proposed source or major modification shall submit all information necessary to perform any analysis or make any determination required under procedures established in accordance with Article 2, Section 19. Such information shall include:
 - (a) A description of the nature, location, design capacity, and typical operating schedule of the source or major modification, including specifications and drawings showing its design and plant layout;
 - (b) A detailed schedule for construction of the source or major modification;
 - (c) A detailed description as to what system of continuous emission reduction is planned by the source or major modification, emissions estimates, and any other information as necessary to determine that BACT as applicable would be applied.
 - (2) Upon request by the Department, the owner or operator shall also provide information on:
 - (a) The air quality impact of the source or major modification, including meteorological and topographical data necessary to estimate such impact; and
 - (b) The air quality impacts and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or major modification would affect.
- (V) Additional Impact Analyses.
- (1) The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or major modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.

- (2) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the source or major modification.
- (W) Notification to Permit Applicants and Public.
- (1) The Department shall determine if a permit application is complete within sixty (60) days after receipt of the application and so notify the applicant. If the Department determines that the application is not complete and additional information is necessary to evaluate or take final action on the application, the Department may request such information in writing and set a reasonable deadline for a response. The Department may determine that an application is complete, but later determine that additional information is needed to evaluate or take final action on the application.
 - (2) If the Department does not determine that the application is not complete, the application is automatically deemed to be complete sixty (60) days after it was received by the Department. Nothing in this section shall prohibit the Department from requesting additional information that is necessary to evaluate or take final action on the application or release the applicant from providing such information.
 - (3) Within one (1) year after receipt of a complete application, the Department shall make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.
 - (4) The Department shall provide opportunity to the public to submit comments or request a public hearing on every PSD permit application approved or approved with conditions, in accordance Article 2, Section 14, paragraph (J).
- (X) Source Obligation.
- (1) Approval to construct and issuance of a major PSD construction permit shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the SIP and any other requirements under local, state, or Federal law.
 - (2) At any time that a source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of paragraphs (P) through (X) of this section shall apply to the source or modification as though construction had not yet commenced on the source or modification.
 - (3) The following provisions apply to projects at existing emissions units at a major stationary source where the project is not a part of a major modification and where the owner or operator elects to use the method specified in paragraphs (F)(1) through (F)(4) of this section for calculating projected actual emissions:
 - (a) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
 - (1) A description of the project;
 - (2) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
 - (3) The applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the BAE, the PAE, and any netting calculations if applicable. The owner or operator must also include the amount of emissions excluded due to demand growth, as defined in paragraph (F)(4) of this section, and an explanation for why such amount was excluded.
 - (b) Before beginning actual construction, the owner or operator shall meet face-to-face with a Department representative to discuss the PAE determination, and shall provide a copy of the information set out in paragraph (X)(3)(a) above to the Department. The owner or operator of such a unit is not required to obtain any determination from the Department before beginning actual construction.
 - (c) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in paragraph (X)(3)(a)(2) above, and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

- (d) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the Department within sixty (60) days after the end of each calendar year during which records must be generated under paragraph (X)(3)(c) above, setting out the unit's annual emissions during the calendar year that preceded submission of the report.
 - (e) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the Department if the annual emissions, in tons per year, from the project identified in paragraph (X)(3)(a) above exceed the BAE (as documented and maintained pursuant to paragraph (X)(3)(a)(3) above) by eighty percent (80%) of the significant amount for that regulated NSR pollutant, as listed in paragraph (J) of this section. Such report shall be submitted to the Department within sixty (60) days after the end of such calendar year. The report shall contain the following:
 - (1) The name, address, and telephone number of the major stationary source;
 - (2) The annual emissions as calculated pursuant to paragraph (X)(3)(e) above; and
 - (3) An explanation as to whether the emissions differ from the preconstruction projections, and, if so, why.
 - (f) A PSD construction permit is required for each unit with annual net emissions of a regulated NSR pollutant exceeding the significance level listed in paragraph (J) of this section notwithstanding PAE below the significance level.
- (4) The owner or operator shall make the information required to be documented and maintained pursuant to paragraph (X)(3) of this section available for review upon request for inspection by the Department or the general public pursuant to the requirements contained in Article 2, Section 14.
- (Y) If any provisions of this section, or the application of such provision to any person or circumstance, is held invalid, the remainder of this section, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

Ref: Title 129, Chapter 19, Nebraska Department of Environmental Quality